

APPENDIX A
MARKED UP VERSION OF AMENDED CLAIMS

1. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
 - (a) the nucleotide sequence as set forth in SEQ ID NOS: NO: 1 or 3;
 - (b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (c) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of (a) or (b); and
 - (d) a nucleotide sequence complementary to any of (a)-(c).
2. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
 - (a) a nucleotide sequence encoding a polypeptide that is at least about 70, 75, 80, 85, 90, 95, 96, 97, 98, or 99 percent identical to the polypeptide set forth in SEQ ID NOS: NO: 2 or 4, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (b) a nucleotide sequence encoding an allelic variant or splice variant of the nucleotide sequence as set forth in SEQ ID NOS: NO: 1 or 3;
 - (c) a nucleotide sequence of SEQ ID NOS: NO: 1; 3; (a); or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (d) a nucleotide sequence of SEQ ID NOS: NO: 1, 3; or (a)-(c) comprising a fragment of at least about 16 nucleotides;
 - (e) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(d); and
 - (f) a nucleotide sequence complementary to any of (a)-(c).
3. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
 - (a) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NOS: NO: 2 or 4 with at least one conservative amino acid substitution, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (b) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NOS: NO: 2 or 4 with at least one amino acid insertion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (c) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NOS: NO: 2 or 4 with at least one amino acid deletion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (d) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NOS: NO: 2 or 4 which has a C- and/or – terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;
 - (e) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NOS: NO: 2 or 4 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NOS: NO: 2 or 4;

- (f) a nucleotide sequence of (a)-(e) comprising a fragment of at least about 16 nucleotides;
- (g) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(f); and
- (h) a nucleotide sequence complementary to any of (a)-(e).

59. A diagnostic reagent comprising a detectably labeled polynucleotide encoding the amino acid sequence set out in SEQ ID NOS: NO: 2 or 4; or a fragment, variant or homolog thereof including allelic variants and spliced variants thereof.